

The representatives of the company courteously permitted us to see the plans, but as they have a proprietary interest therein we have refrained from using the plans, having found it sufficient for our purpose to deal only with the particulars as contained in the book published by the Harbour Board. Mr. Hamer in his evidence stated that he estimated that prior to the war the cost of a ship-canal by the Whau route would have increased from his former estimate to £1,150,000, and that the present cost would be very materially increased thereon. It may be assumed that, under present conditions of the cost of labour and materials, that pre-war estimate might be increased to at least £2,000,000, and that a canal for barge traffic only would probably cost not less than £1,000,000 by this route. We have therefore taken those figures as a sufficiently close approximation in investigating the probabilities as to whether such schemes would be payable propositions.

It appeared from the evidence of Mr. D. B. Russell, of Avondale, that in 1913 he obtained a concession from the Auckland Harbour Board, subject to ratification in details and by legislation, under which he anticipated obtaining capital outside New Zealand to build the Whau canal as part of a scheme for the shipment of Waikato coal to foreign ports, but the scheme was not proceeded with.

We are of opinion that the popular view that there would be a considerable saving in time and money through the construction of a ship-canal by the Whau route for vessels trading from Auckland to Australia is fallacious. The saving in distance to Sydney of from 70 to 75 miles would be fully offset by the risk involved in navigating the Manukau bar by deep-draught vessels and by the canal dues that would have to be paid. The saving in time, owing to the slow navigation through the canal and locks and in the shallow waters of the harbour, would be negligible.

Little statistical information being supplied by witnesses or by any representative public body upon the question as to the amount of tonnage either of vessels or of goods that would be likely to pass through either the Tamaki or the Whau barge-canal, if constructed, or the Whau ship-canal, we have been compelled to fall back upon our own general knowledge, and we have concluded that there appears to be no present justification for the construction of the heavy and costly work needed for a canal, either for large vessels or for barges, upon the Whau route.

With regard to the Tamaki route there appears to be more justification, and we have looked into the matter in more detail. The Auckland Harbour Board in 1915 had surveys, soundings, and sections made from the Mangere Bridge, in the Manukau, by two alternative routes, to the bridge which crosses the Tamaki Creek at Panmure. Route "A" was the shorter in actual length. It left the Manukau Harbour at St. Anne's Bridge, and, running through ground rising only to 44 ft. above the datum of Auckland dock-sill, but known to contain rock, joined the Tamaki River about 60 chains above the Panmure Road Bridge. The length from the Mangere Bridge over the Manukau Harbour to the Panmure Road Bridge by this route would be about 25,000 ft., of which nearly 7,000 ft. would be in earth and rock excavation; and the route has the disadvantage that near St. Anne's Bridge it would seriously clash with the proposed diversion of the Main Trunk Railway-line past Panmure. Route "B," which passes through the canal reserve, has a total length between the Mangere and Panmure Road Bridges of about 33,000 ft., but has only about 2,700 ft. of excavation above high-water level, running through ground rising to about 53 ft. above datum. It has, however, the objection that it would require somewhat more dredging and straightening of the bed of the creeks than would be needed for scheme "A." The plans and sections showing these routes are recorded as M.D. 4450 and 4451.

Mr. Hamer in his evidence stated that he had made an approximate estimate before the war that a barge-canal having 10 ft. depth and a bottom width of 35 ft. could have been constructed for £300,000 on route "B."

We propose that the Upper waters of the Manukau should be impounded at the Mangere embankment and bridge, and a lock put there so as to form a lake of the lands now largely dry at low water, thus materially reducing the dredging that would be required on the Onehunga side, as well as improving the sanitary condition of a large stretch of foreshore. We have worked out in detail estimates for this work on the assumption that it might be carried out shortly, and therefore at prices